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                Web Page URLs for STN Seminar Schedule - N. America
                "Ask CAS" for self-help around the clock
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NEWS 3 AUG 09
                INSPEC enhanced with 1898-1968 archive
                ADISCTI Reloaded and Enhanced
NEWS 4 AUG 28
                CA(SM)/CAplus(SM) Austrian patent law changes
        AUG 30
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                CA/CAplus enhanced with more pre-1907 records
        SEP 11
NEWS
                CA/CAplus fields enhanced with simultaneous left and right
        SEP 21
NEWS
                truncation
                CA(SM)/CAplus(SM) display of CA Lexicon, enhanced
NEWS
     8
        SEP 25
        SEP 25
    9
                CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS
NEWS 10 SEP 25
                CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
                CEABA-VTB classification code fields reloaded with new
NEWS 11
        SEP 28
                classification scheme
                LOGOFF HOLD duration extended to 120 minutes
NEWS 12
        OCT 19
NEWS 13
        OCT 19
                B-mail format enhanced
                Option to turn off MARPAT highlighting enhancements available
NEWS 14 OCT 23
                CAS Registry Number crossover limit increased to 300,000 in
NEWS 15 OCT 23
                multiple databases
                The Derwent World Patents Index suite of databases on STN
NEWS 16 OCT 23
                has been enhanced and reloaded
NEWS 17
       OCT 30
                CHEMLIST enhanced with new search and display field
                JAPIO enhanced with IPC 8 features and functionality
       NOV 03
NEWS 18
       NOV 10
NEWS 19
                CA/CAplus F-Term thesaurus enhanced
                STN Express with Discover! free maintenance release Version
        NOV 10
NEWS 20
                8.01c now available
NEWS 21 NOV 13
                CA/CAplus pre-1967 chemical substance index entries enhanced
                with preparation role
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NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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=> oncolytic

L1 2297 ONCOLYTIC

=> oncolysis

L2 529 ONCOLYSIS

=> diagnosis

L3 907108 DIAGNOSIS

=> L1 and L3

L4 40 L1 AND L3

=> L1 and L2

L5 314 L1 AND L2

=> cancer and L4

L6 18 CANCER AND L4

=> cancer L5
MISSING OPERATOR CANCER L5
The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> cancer and L5
L7 202 CANCER AND L5

=> phenotyp3 75% OF LIMIT FOR TOTAL ANSWERS REACHED L8 9482317 3

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=> diagnosis and L11 L13 7 DIAGNOSIS AND L11

=> diagnosis and L12 L14 27130 DIAGNOSIS AND L12

=> L12 and L2

## => D L13 IBIB ABS 1-7

L13 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:733735 CAPLUS

DOCUMENT NUMBER:

145:165508

TITLE:

Nucleic acids encoding tumor suppressor, proapoptotic

protein, cytokine, growth factor, hormone, tumor

antigen or enzyme for diagnosis and therapy

of cancer or hyperproliferative disease

INVENTOR (S):

Clarke, Peter; Chada, Sunil; Menander, Kerstin; Sobol, Robert; Zhang, Shuyuan

PATENT ASSIGNEE(S):

Introgen Therapeutics, Inc., USA

SOURCE:

PCT Int. Appl., 164 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. K						KIND DATE			APPLICATION NO.						DATE			
WO 2	WO 2006079014				A2			20060727		WO 2006-US2255					20060120			
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
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•		VN,	YU,	ZA,	ZM,	ZW												
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IORITY APPLN. INFO.:							•		US 2005-645826P						P 20050121			

PRI

US 2005-692481P P 20050621

AB Compns. and methods for preventing or inhibiting the growth of a hyperproliferative lesion in a subject that include a nucleic acid comprised in a solid or semi-solid formation or in a transdermal or transcutaneous delivery device are disclosed. Also disclosed are compns. of a nucleic acid capable of preventing or inhibiting the growth of a hyperproliferative lesion in a subject that include an adhesive. Compns. of a nucleic acid capable of preventing or inhibiting the growth of a hyperproliferative lesion in a subject that include a nucleic acid uptake enhancer are also disclosed. Methods of preventing or inhibiting the growth of a hyperproliferative lesion in a subject that involve these therapeutic compns. and devices are also disclosed.

L13 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:20988 CAPLUS

DOCUMENT NUMBER:

140:73576

TITLE:

Oncolytic viruses as phenotyping agents for neoplasms and use for tumor diagnosis and

therapy

INVENTOR (S):

Thompson, Bradley G.; Coffey, Matthew C.

PATENT ASSIGNEE(S): Oncolytics Biotech, Inc., Can.

SOURCE:

PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                            KIND
                                     DATE
                                                  APPLICATION NO.
                                                                             DATE
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      WO 2004003562
                             A2
                                     20040108
                                                  WO 2003-CA951
                                                                             20030625
      WO 2004003562
                             A3
                                     20040506
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
               GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
               LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
               PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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      US 2004029112
                             A1
                                    20040212
                                                  US 2003-602024
                                                                          20030624
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                                    20040108
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      AU 2003245760
                             A1
                                    20040119
                                                  AU 2003-245760
                                                                            20030625
      EP 1520175
                             A2
                                    20050406
                                                  EP 2003-737795
                                                                            20030625
              AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
      BR 2003011983
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                                    20050426
                                                                            20030625
      CN 1666105
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      JP 2005531306
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                                    20051020
                                                  JP 2004-516379
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PRIORITY APPLN. INFO.:
                                                  US 2002-392031P
                                                                         P 20020628
                                                  US 2003-443188P
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                                                                            20030129
                                                  WO 2003-CA951
                                                                         W 20030625
     The present invention provides a method of diagnosing neoplasms having a
AB
     particular phenotype by using oncolytic viruses that selectively
      replicate in neoplasms having the particular phenotype. For example,
     reovirus does not replicate in normal cells. However, reovirus
     selectively replicate in cells with an activated ras pathway, which leads
     to death of these cells. Therefore, a cell which becomes neoplastic due
     to, at least in part, elevated ras pathway activities can be diagnosed by
     its susceptibility to reovirus replication. This invention can further be
     applied, using other oncolytic viruses, to the diagnosis
     and/or treatment of other tumors, such as interferon-sensitive tumors,
     p53-deficient tumors and Rb-deficient tumors. Kits useful in the
     diagnosis or treatment disclosed herein are also provided.
L13 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                            2002:716031 CAPLUS
DOCUMENT NUMBER:
                            137:242151
TITLE:
                            Oncolytic RNA replicons
INVENTOR (S):
                            Ansardi, David C.; Morrow, Casey D.; Porter, Donna C.
                            University of Alabama Research Foundation, USA;
PATENT ASSIGNEE(S):
                            Replicon Technologies, Inc.
SOURCE:
                            PCT Int. Appl., 67 pp.
                            CODEN: PIXXD2
DOCUMENT TYPE:
                            Patent
LANGUAGE:
                            English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                            KIND
                                    DATE
                                                 APPLICATION NO.
                                                                            DATE
                            ----
     WO 2002072027
                            A2
                                    20020919
                                                 WO 2002-US7646
                                                                            20020313
     WO 2002072027
                            A3
                                    20030918
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PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2002072027 A2 20020919 WO 2002-US7646 20020313

WO 2002072027 A3 20030918

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
        AU 2002306709
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PRIORITY APPLN. INFO.:
                                                                           US 2001-275840P
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                                                                           WO 2002-US7646
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AB The limited efficacy and/or toxicity of conventional therapies for many types of human cancers underscores the need for development of safe and effective alternative treatments. Towards this goal, the invention describes the direct oncolytic activity of RNA-based vectors derived from poliovirus, termed replicons, which are genetically incapable of producing infectious virus. Replicons of the invention are cytopathic in vivo for human tumor cells originating from brain, breast, lung, ovaries and skin (melanoma). Injection of replicons into established xenograft flank tumors in scid mice resulted in oncolytic activity and extended survival. Inoculation of replicons into established intracranial xenografts tumors in scid mice resulted in tumor infection and extended survival. Histol. anal. revealed that replicons infected tumors cells at the site of inoculation and, most importantly, diffused to infect tumor cells which had metastasized from the initial site of implementation. The wide spectrum of cytopathic activity for human tumors combined with effective distribution following in vivo inoculation establishes the therapeutic potential of poliovirus replicons for a variety of cancers. Replicons of the invention may addnl. comprise a heterologous nucleic acid with a min. length of one nucleotide. According to the invention, a heterologous nucleic acid is any nucleic acid that is not present in the genome of wildtype poliovirus. Thus, the invention contemplates a replicon having a transgene, a site-specific mutation (e.g. deletion, insertion, or substitution), a restriction site, a site-specific recombination site (e.g. loxP, FRT, and RS), an expression control sequence, or combinations thereof. Transgenes may confer or enhance oncolytic activity by various means. A transgene of the invention may also encode markers such as luciferase, an autofluorescent protein (e.g. green fluorescence protein), and 3 -glucuronidase. A transgene for use in the invention may also encode an immunogen.

L13 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:659029 CAPLUS

DOCUMENT NUMBER: TITLE:

136:48099
A hepatocellular carcinoma-specific adenovirus

variant, CV890, eliminates distant human liver tumors

in combination with doxorubicin

AUTHOR (S):

Li, Yuanhao; Yu, De-Chao; Chen, Yu; Amin, Pinky; Zhang, Hong; Nguyen, Natalie; Henderson, Daniel R.

CORPORATE SOURCE: Calydon, Inc., Sunnyvale, CA, 94089, USA SOURCE: Cancer Research (2001), 61(17), 6428-6436

CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER:

American Association for Cancer Research

DOCUMENT TYPE:

Journal

LANGUAGE: English

AB Hepatocellular carcinoma (HCC) is the third leading cause of cancer death in the world. Tumor resection remains the only curative treatment but is often not possible because of advanced stage and frequently unsuccessful because of intrahepatic or distant tumor recurrence. α-Fetoprotein (AFP), a tumor marker currently used for the diagnosis and management of HCC, is an oncofetal protein expressed in a majority of HCCs but rarely in normal hepatocytes. Because AFP gene expression is tightly regulated at the level of transcription, AFP transcriptional regulatory elements (TRE) are excellent candidates for generating HCC-specific oncolytic adenoviruses. We devised a new strategy for the AFP TRE to control an artificial E1A-IRES-E1B

HCC-specific oncolytic virus, CV890. In vitro, CV890 expression of the E1A and E1B genes, virus replication, and cytopathic effects were examined by Northern blot, Western blot, virus yield assay, and 3 -(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay in AFP-producing cell lines (HepG2, Huh7, Hep3B, PLC/PRF/5, and SNU449), non-APP-producing cell lines (Sk-Hep-1, Chang liver cell, LNCaP, HBL-100, PA-1, UM-UC-3, SW 780, Colo 201, and U118 MG), and non-AFP-producing human primary cells (lung fibroblast, bladder smooth muscle, and mammary epithelial). CV890 efficiently replicates in and destroys AFP-producing HCC cells as well as wild-type Ad5, but replication is highly attenuated in non-AFP-producing HCC cells or non-HCC cells. CV890 produced 5,000-100,000-fold less virus than wild-type Ad5 in non-AFP-producing cells. CV890 was attenuated 100-fold more than CV732, a virus containing the AFP TRE driving the E1A gene alone, in non-AFP-producing These studies demonstrated that expression of both E1A and E1B genes under the control of a bicistronic AFP-E1A-IRES-E1B cassette yielded improvements in virus specificity equivalent to driving the E1A and E1B genes with two independent TREs yet requires only one TRE thereby conserving genomic space within the virus. Significantly, CV890 produced nearly the same yield of virus in cells that produced AFP over a 75-fold range, from a low of 60 ng AFP/106 cells/10 days to as high as 4585 ng AFP/106 cells/10 days. In vivo, antitumor efficacy of CV890 was examined in BALB/c-nu/nu mice containing large s.c. HepG2 or Hep3B tumor xenografts. Tumor volume of distant xenografts dropped below baseline 4 wk after a single i.v. injection. Combination of CV890 with doxorubicin demonstrated synergistic antitumor efficacy, yielding complete elimination of distant Hep3B tumors 4 wk after a single i.v. administration of both compds. Our results support the clin. development of CV890 as an antineoplastic agent for the treatment of localized or metastatic HCC.

bicistronic cassette in an adenovirus 5 vector (Ad5) and constructed an

REFERENCE COUNT:

32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 7

BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN 2003:586592 BIOSIS

ACCESSION NUMBER: DOCUMENT NUMBER:

PREV200300570046

TITLE:

Phase I study of replication-competent adenovirus-mediated

double-suicide gene therapy in combination with

conventional-dose three-dimensional conformal radiation therapy for the treatment of newly diagnosed, intermediate-

to high-risk prostate cancer.

AUTHOR (S):

Freytag, Svend O. [Reprint Author]; Stricker, Hans; Pegg, Jan; Paielli, Dell; Pradhan, Deepak G.; Peabody, James; Deperalta-Venturina, Mariza; Xia, Xueqing; Brown, Steve; Lu, Mei; Kim, Jae Ho

CORPORATE SOURCE:

Molecular Biology Research, Henry Ford Health System, One

Ford Place, Wing 5D, Detroit, MI, 48202-3450, USA

sfreytal@hfhs.org

SOURCE:

Cancer Research, (November 1 2003) Vol. 63, No. 21, pp.

7497-7506. print.

ISSN: 0008-5472 (ISSN print).

DOCUMENT TYPE:

Article English

LANGUAGE: ENTRY DATE:

Entered STN: 10 Dec 2003

Last Updated on STN: 10 Dec 2003

AB The primary study objective was to determine the safety of intraprostatic administration of a replication-competent, oncolytic adenovirus containing a cytosine deaminase (CD)/herpes simplex virus thymidine kinase (HSV-1 TK) fusion gene concomitant with increasing durations of 5-fluorocytosine and valganciclovir prodrug therapy and conventional-dose three-dimensional conformal radiation therapy (3D-CRT) in patients with newly diagnosed, intermediate- to high-risk prostate cancer. Secondary objectives were to determine the persistence of therapeutic transgene expression in the prostate and to examine early posttreatment

response. Fifteen patients in five cohorts received a single intraprostatic injection of 1012 viral particles of the replication-competent Ad5-CD/TKrep adenovirus on day 1. Two days later, patients were administered 5-fluorocytosine and valganciclovir prodrug therapy for 1 (cohorts 1-3), 2 (cohort 4), or 3 (cohort 5) weeks along with 70-74 Gy 3D-CRT. Sextant needle biopsy of the prostate was obtained at 2 (cohort 1), 3 (cohort 2), and 4 (cohort 3) weeks for determination of the persistence of transgene expression. There were no dose-limiting toxicities and no significant treatment-related adverse events. Ninety-four percent of the adverse events observed were mild to moderate and self-limiting. Acute urinary and gastrointestinal toxicities were similar to those expected for conventional-dose 3D-CRT. Therapeutic transgene expression was found to persist in the prostate for up to 3 weeks after the adenovirus injection. As expected for patients receiving definitive radiation therapy, all patients experienced significant declines in prostate-specific antigen (PSA). The mean PSA half-life in patients administered more than 1 week of prodrug therapy was significantly shorter than that of patients receiving prodrugs for only 1 week (0.6 versus 2.0 months; P < 0.02) and markedly shorter than that reported previously for patients treated with conventional-dose 3D-CRT alone (2.4 months). With a median follow-up of only 9 months, 5 of 10 (50%) patients not treated with androgen-deprivation therapy achieved a serum PSA ltoreq 0.5 ng/ml. results demonstrate that replication-competent adenovirus-mediated double-suicide gene therapy can be combined safely with conventional-dose 3D-CRT in patients with intermediate- to high-risk prostate cancer The shorter than expected PSA half-life in patients receiving more than

. The shorter than expected PSA half-life in patients receiving more than 1 week of prodrug therapy may suggest a possible interaction between the oncolytic adenovirus and/or double-suicide gene therapies and radiation therapy.

L13 ANSWER 6 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:451747 BIOSIS DOCUMENT NUMBER: PREV200100451747

TITLE: A hepatocellular carcinoma-specific adenovirus variant,

CV890, eliminates distant human liver tumors in combination

with doxorubicin.

AUTHOR(S): Li, Yuanhao; Yu, De-Chao; Chen, Yu; Amin, Pinky; Zhang,

Hong; Nguyen, Natalie; Henderson, Daniel R. [Reprint

author]

CORPORATE SOURCE: Calydon, Inc., 1324 Chesapeake Terrace, Sunnyvale, CA,

94089, USA

dhenderson@calydon.com

SOURCE: Cancer Research, (September 1, 2001) Vol. 61, No. 17, pp.

6428-6436. print.

CODEN: CNREA8. ISSN: 0008-5472.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 19 Sep 2001

Last Updated on STN: 22 Feb 2002

AB Hepatocellular carcinoma (HCC) is the third leading cause of cancer death in the world. Tumor resection remains the only curative treatment but is often not possible because of advanced stage and frequently unsuccessful because of intrahepatic or distant tumor recurrence. alpha-Fetoprotein (AFP), a tumor marker currently used for the diagnosis and management of HCC, is an oncofetal protein expressed in a majority of HCCs but rarely in normal hepatocytes. Because AFP gene expression is tightly regulated at the level of transcription, AFP transcriptional regulatory elements (TRE) are excellent candidates for generating HCC-specific oncolytic adenoviruses. We devised a new strategy for the AFP TRE to control an artificial E1A-IRES-E1B bicistronic cassette in an adenovirus 5 vector (Ad5) and constructed an HCC-specific oncolytic virus, CV890. In vitro, CV890 expression of the E1A and E1B genes, virus replication, and cytopathic effects were

examined by Northern blot, Western blot, virus yield assay, and 3 -(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay in AFP-producing cell lines (HepG2, Huh7, Hep3B, PLC/PRP/5, and SNU449), non-AFP-producing cell lines (Sk-Hep-1, Chang liver cell, LNCaP, HBL-100, PA-1, UM-UC-3, SW 780, Colo 201, and Ull8 MG), and non-APP-producing human primary cells (lung fibroblast, bladder smooth muscle, and mammary epithelial). CV890 efficiently replicates in and destroys APP-producing HCC cells as well as wild-type Ad5, but replication is highly attenuated in non-AFP-producing HCC cells or non-HCC cells. CV890 produced 5,000-100,000-fold less virus than wild-type Ad5 in non-AFP-producing cells. CV890 was attenuated 100-fold more than CV732, a virus containing the AFP TRE driving the ElA gene alone, in non-AFP-producing cells. These studies demonstrated that expression of both E1A and E1B genes under the control of a bicistronic AFP-E1A-IRES-E1B cassette yielded improvements in virus specificity equivalent to driving the E1A and E1B genes with two independent TREs yet requires only one TRE thereby conserving genomic space within the virus. Significantly, CV890 produced nearly the same yield of virus in cells that produced AFP over a 75-fold range, from a low of 60 ng AFP/106 cells/10 days to as high as 4585 ng AFP/106 cells/10 days. In vivo, antitumor efficacy of CV890 was examined in BALB/c-nu/nu mice containing large s.c. HepG2 or Hep3B tumor xenografts. Tumor volume of distant xenografts dropped below baseline 4 weeks after a single i.v. injection. Combination of CV890 with doxorubicin demonstrated synergistic antitumor efficacy, yielding complete elimination of distant Hep3B tumors 4 weeks after a single i.v. administration of both compounds. Our results support the clinical development of CV890 as an antineoplastic agent for the treatment of localized or metastatic HCC.

L13 ANSWER 7 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:512691 BIOSIS DOCUMENT NUMBER: PREV200000512691

TITLE: Gene therapy for brain tumors: The fundamentals.

AUTHOR(S): Engelhard, Herbert H. [Reprint author]

CORPORATE SOURCE: Departments of Neurosurgery and Molecular Genetics,

University of Illinois at Chicago, 912 South Wood St.,

Chicago, IL, 60612, USA

SOURCE: Surgical Neurology, (July, 2000) Vol. 54, No. 1, pp. 3-9.

print.

ISSN: 0090-3019.

DOCUMENT TYPE:

Article English

LANGUAGE: .
ENTRY DATE:

Entered STN: 22 Nov 2000

Last Updated on STN: 11 Jan 2002

BACKGROUND: Over the past two decades, significant advances have been made in the fields of virology and molecular biology, and in understanding the genetic alterations present in brain tumors. The knowledge gained has been exploited for use in gene therapy. OBJECTIVE: The purpose of this article is to present an introduction to the field of brain tumor gene therapy for the practicing clinician. RESULTS: A variety of gene therapy strategies have now been used in the laboratory and in clinical trials for brain tumors. They can be divided into five categories: 1) gene-directed enzyme prodrug ("suicide gene") therapy (GDEPT); 2) gene therapy designed to boost the activity of the immune system against cancer cells; 3) oncolytic virus therapy; 4) transfer of potentially therapeutic genes-such as tumor suppressor genes-into cancer cells; and 5) antisense therapy. GDEPT is the strategy that has been most extensively studied. CONCLUSIONS: To date, gene therapy has been found to be reasonably safe and concerns related to adverse events such as insertional mutagenesis have not been realized. Although patients have not been cured, the development of this therapy could still be considered to be at an early stage. Current research is addressing factors that could be limiting the successful clinical application of gene therapy, which remains an intriguing experimental option for patients with

## malignant brain tumors.

=> Therapeutic adj diagnosis L16 0 THERAPEUTIC ADJ DIAGNOSIS

=> therapeutic (w) diagnosis L17 134 THERAPEUTIC (W) DIAGNOSIS

=> L1 and L17 L18 0 L1 AND L17

=> L2 andf L17
MISSING OPERATOR L2 ANDF
The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> L2 and L17 L19 0 L2 AND L17